

ARI Research Note 99-12

## **Analysis of Linkages Between Military Enlistment Plans and Behaviors**

**Peter Freedman-Doan and Jerald G. Bachman**  
University of Michigan

**Research and Advanced Concepts Office**  
**Michael Drillings, Chief**

February 1999



**U.S. Army Research Institute  
for the Behavioral and Social Sciences**

Approved for public release; distribution is unlimited.

1 9 9 9 0 2 1 6 1 5 6

## REPORT DOCUMENTATION PAGE

1. REPORT DATE (dd-mm-yy) February 1999	2. REPORT TYPE Final	3. DATES COVERED (from . . . to)			
4. TITLE AND SUBTITLE  Analysis of Linkages between Military Enlistment Plans and Behaviors			5a. CONTRACT OR GRANT NUMBER MDA903-93-D-0032		
			5b. PROGRAM ELEMENT NUMBER 20262785		
6. AUTHOR(S)  Peter Freedman-Doan, & Jerald G. Bachman  (Survey Research Center, University of Michigan)			5c. PROJECT NUMBER A790		
			5d. TASK NUMBER 1311		
			5e. WORK UNIT NUMBER C011		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)  University of Michigan Survey Research Center			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)  U.S. Army Research Institute for the Behavioral and Social Sciences 5001 Eisenhower Avenue Alexandria, VA 22333-5600			10. MONITOR ACRONYM ARI		
			11. MONITOR REPORT NUMBER Research Note 99-12		
12. DISTRIBUTION/AVAILABILITY STATEMENT  Approved for public release; distribution is unlimited.					
13. SUPPLEMENTARY NOTES					
<p><b>14. ABSTRACT (Maximum 200 words):</b></p> <p>The Office of the Deputy Chief of Staff for Personnel assigned the Army Research Institute (ARI) to identify and to evaluate factors that influence military enlistment propensity, the enlistment decision, and military career progression. As a part of that effort, researchers at the University of Michigan's Institute for Social Research contracted to analyze relevant data collected as part of the Monitoring the Future (MTF) survey from high school seniors and young adults. The MTF data set is unique among social science data collections because of its large national random samples and its cohort sequential design. Each year since 1975, random samples of approximately 17,000 high school seniors per year have provided responses to a 45-minute paper and pencil self-administered questionnaire. Approximately 2,400 young persons from each senior class are selected for follow-up data collections. Each young person in the follow-up is mailed a questionnaire every two years until reaching age 35. This cohort sequential design allowed MTF researchers to examine a variety of issues directly related to the charge given to ARI by the Office of the Deputy Chief of Staff for Personnel</p>					
15. SUBJECT TERMS  Personnel Enlistment					
SECURITY CLASSIFICATION OF			19. LIMITATION OF ABSTRACT	20. NUMBER OF PAGES	21. RESPONSIBLE PERSON (Name and Telephone Number)
16. REPORT Unclassified	17. ABSTRACT Unclassified	18. THIS PAGE Unclassified	Unlimited	12	

**Analysis of Linkages between Military Enlistment Plans and Behaviors**

**Final Report**

**December 22, 1998**

Contract No. MDA903-93-D-0032

Delivery Order 0067

Jerald G. Bachman, Program Director

Peter Freedman-Doan, Research Associate

The Office of the Deputy Chief of Staff for Personnel assigned the Army Research Institute (ARI) to identify and to evaluate factors that influence military enlistment propensity, the enlistment decision, and military career progression. As a part of that effort, researchers at the University of Michigan's Institute for Social Research contracted to analyze relevant data collected as part of the Monitoring the Future (MTF) survey from high school seniors and young adults. The MTF data set is unique among social science data collections because of its large national random samples and its cohort sequential design. Each year since 1975, random samples of approximately 17,000 high school seniors per year have provided responses to a 45-minute paper and pencil self-administered questionnaire. Approximately 2,400 young persons from each senior class are selected for follow-up data collections. Each young person in the follow-up is mailed a questionnaire every two years until reaching age 35. This cohort sequential design allowed MTF researchers to examine a variety of issues directly related to the charge given to ARI by the Office of the Deputy Chief of Staff for Personnel. In this document we summarize the results of the analyses of MTF data that took place over the last three years (1996-1998) under a sub-contract from the Human Resources Research Organization (HumRRO). Further, we present the results of the last two analyses undertaken with support from this sub-contract.

The first year of the research effort focussed on the linkages between expressed propensity to enlist and actual enlistment. Prior research had suggested that there were indeed links between a person's expressed likelihood of enlistment and actual enlistment. The MTF samples allowed researchers to estimate the strength of that linkage. Analyses of MTF samples

resulted in a forthcoming publication in *Armed Forces and Society* entitled, "Military Propensity and the Propensity-Enlistment Relationship." The article demonstrated that the relationship between propensity and enlistment, particularly among males, was much stronger than heretofore recognized. A detailed technical report to HumRRO and ARI was also part of the first year's efforts. That technical report was added to the MTF Occasional Paper series as "Trends in Military Propensity and the Propensity-Enlistment Relationship."

Because the MTF samples revealed such a strong relationship between senior year propensity and subsequent enlistment, in the second year of analyses the researchers examined the correlates of propensity. What factors measured in the MTF data collections might predict propensity? A wide range of demographic, educational and ideological factors was examined as they related to propensity and enlistment. These analyses revealed that, in the main, those who expect to enlist, and those who actually do so, are individuals who do not plan to complete college, who view the military as an attractive work environment, and who do not run afoul of educational or behavioral military enlistment standards. A second report to HumRRO and ARI on the correlates of propensity among seniors was completed during the second year of the project. A publication entitled, "Who Chooses Military Service? Correlates of Propensity and Enlistment in the United States Military," was excerpted from the second year report and is forthcoming in *Military Psychology*. The technical report was added to the MTF Occasional Paper series as "Military Propensity and Enlistment: Cross-Sectional and Panel Analyses of Correlates and Predictors."

During the second year of the research effort, MTF researchers in collaboration with David Segal (University of Maryland) also produced an article concerning trends in propensity

over time forthcoming in *Armed Forces and Society*. The article details trends over the last 20 years in propensity by racial and gender sub-groups, as well as by plans for further education. The widely discussed overall decline in propensity in the 90's was found to result primarily from a decline in propensity among African-Americans.

The third year's work began with a collaborative investigation of gender issues and propensity with Dr. Mady Segal of The University of Maryland. The collaboration resulted in an article, forthcoming in *Gender Issues* (authored by M. Segal, D. Segal, Bachman, Freedman-Doan, & O'Malley), entitled, "Gender and the Propensity to Enlist in the United States Military". This article further explored propensity and enlistment differences between men and women; it showed that larger numbers of women desire and expect to serve than the military is enlisting. Having children had a small negative effect on high propensity women's enlistment, but an even stronger positive effect on low propensity men's enlistment.

Efforts in the final year then shifted the focus of investigation from the relationship between propensity and enlistment to issues related to the composition and character of newly recruited cohorts of military enlistees. First, the researchers compared licit and illicit substance use among new recruits and their civilian peers. The analyses found that there were sharp drops in illicit drug use among new military recruits that coincides with changes in armed forces policy. The peers of new recruits who choose college or a civilian job after high school did not show similar declines in illicit drug use. An article entitled, "Changing Patterns of Drug Use Among High School Seniors (1976-1995) Who Entered Military Service: Implications for Drug Abuse Prevention" is forthcoming in *the American Journal of Public Health*.

Next, in response to recent concern about a possible ideological gap between the military

and civilians, MTF data was analyzed to compare the political attitudes and values of new recruits with their non-service peers. The results of those analyses are presented in the attached technical report entitled "Is There a Gap Between Soldiers and Civilians? Comparing the Political Attitudes of Young Recruits and their Non-Service Peers, 1976-1997."

The final area of investigation undertaken with MTF data proved to be less fruitful than previous topics of interest. The armed forces expend considerable amounts of time and treasure training new recruits. Many recruits begin training but do not complete a full term of enlistment. When the analyses of MTF data sets was first contemplated three years ago, it seemed likely that MTF data might be able to shed light on the issue of early attrition. The follow-up questionnaire contains a question that seemed likely to identify those who leave the armed forces prior to completion of a full term of enlistment. The question reads: Now we'd like to know about some things you are doing now, or have done, or plan to do. Please look at each activity listed below, and mark the circle which shows how likely you are to do EACH. The activities listed include, "Serve on active duty in the armed forces, and all respondents are asked to choose from the following alternatives: I'm doing this now; I have done this; Definitely won't; Probably won't; Probably will; and Definitely will. Respondents are given follow-up questionnaires in two-year cycles. Respondents who reported that they "have done" military service on their first follow-up questionnaire, or who reported that on any subsequent follow-up without a response of "I'm doing this now" in a previous follow-up, were judged likely to have left military service without completing a full term of enlistment.

Two problems combined to defeat the effort to establish predictors of early attrition with any degree of confidence. First, the numbers of respondents who said they "have done" service

in the armed forces without a prior report of current service was very small. Among males in the 20 years of MTF follow-up samples, less than 400 out of 19,000 weighted cases give response patterns which could be interpreted as evidence of early attrition. Second, when those cases were analyzed in a fashion similar to the analyses employed in "Military Propensity and Enlistment: Cross-Sectional and Panel Analyses of Correlates and Predictors." (see above) the results were largely uninterpretable. Pooling cases across ten-year periods was attempted to overcome the problem of small numbers of cases in any given year. Within the pools of years the direction of bivariate relations between attrition and many of the predictors would reverse in baffling ways when that same relationship was examined in multivariate analyses. Moreover, the patterns of correlation between background predictors such as race, college plans, educational attainments, and even senior year propensity to enlist did not replicate across the pooled years. Thus, the MTF research team concluded that the MTF datasets were not adequate to produce reliable results about issues related to early attrition.

In sum, the last three years of analyses with MTF data has yielded some valuable insights into propensity, enlistment, and the composition of newly recruited cohorts of service personnel. The research design and the breadth of content areas in the questionnaires make the MTF datasets valuable resources for further research and annual monitoring of trends in a number of areas of interest to scholars, personnel from the Department of Defense, and the broader civilian community.

## References

### Journal Articles

- Bachman J. G., Freedman-Doan, P., O' Malley, P. M., Johnston, L. D., & Segal, D. (Forthcoming). Changing Patterns of Drug Use Among High School Seniors (1976-1995) Who Entered Military Service and Other Post-High School Environments. *American Journal of Public Health.*
- Bachman, J. G., Segal, D. R., Freedman-Doan, P., & O' Malley, P. M. (Forthcoming). Who Chooses Military Service? Correlates of Propensity and Enlistment in the United States Armed Forces. *Military Psychology.*
- Bachman, J. G., Segal, D., Freedman-Doan, P., O' Malley, P .M. (1988). Military propensity and the propensity-enlistment relationship. *Armed Forces & Society, 25*, 59-80.
- Segal, D. R., Bachman, J. G., Freedman-Doan, P., & O' Malley, P. M. (1999). Propensity to serve in the U.S. military: Secular trends and sub-group differences. *Armed Forces and Society.*
- Segal, M., Segal, D. R., Bachman, J. G., Freedman-Doan, P., & O' Malley, P. M. (1998). Gender and the propensity to enlist in the United States military. *Gender Issues, 16*, 65-87.

Occasional Papers and Technical Reports

Bachman, J. G., Freedman-Doan, P., O' Malley, P. M., Johnston, L. D., & Segal, D. (In preparation). Comparing drug using behaviors among high school graduates entering military service, college, and civilian employment. (Monitoring the Future Occasional Paper No. 42). Ann Arbor (MI): Institute for Social Research.

Bachman, J. G., Freedman-Doan, P., Segal, D., & O' Malley, P. M. (1997). Trends in military propensity and the propensity-enlistment relationship. (Monitoring the Future Occasional Paper No. 40). Ann Arbor (MI): Institute for Social Research.

Bachman, J.G., Segal, D. R., Freedman-Doan, P., & O' Malley. (1998). Military Propensity and Enlistment: Cross-Sectional and Panel Analyses of Correlations and Predictions. (Monitoring the Future Occasional Paper No. 41). Ann Arbor (MI): Institute for Social Research.

Freedman-Doan, P., Bachman, J. G., & O' Malley, P. M. (1998) Is There a Gap between Soldiers and Civilians? Comparing the Political Attitudes of Young Recruits with Their Non-Service Peers, 1976-1997. Technical Report Prepared for The Army Research Institute and Human Resources Research Organization. Contract No. MDA903-93-D-0032, Delivery Order 0067.